REMARKS

Claims 1-8, 11-15, 17-25, 27-28, 45-48, 50-55, 57-65, 67-70, 72-76, 78, and 80-84 remain in this application.

The examiner previously allowed claims 45-48, 50-55, 57-65, 67, and 68. The examiner stated that claims 2, 73, and 81 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1, 11, 27, 28, 45, 50, 67, 68, 69, 70, 72, and 78 have previously been amended. Claims 10, 16, 56, 71, and 79 have previously been canceled.

Claims 9, 26, 29-44, 49, 66, 77, and 85-89 have previously been withdrawn as the result of an earlier restriction requirement. In view of the examiner's earlier restriction requirement, the applicants retain the right to present claims 9, 26, 29-44, 49, 66, 77, and 85-89 in a divisional application.

I. CLAIM REJECTIONS – 35 U.S.C. § 102

The examiner rejected claims 1, 3-8, 11-12, 15, 25, 27-28, 69-70, 72-76, 78, 80, and 82-84 under 35 U.S.C. § 102(b) as being anticipated by Flores (U.S. Patent No. 5,701,751) [hereinafter Flores].

The applicants respectfully submit that claims 1, 3-8, 11-12, 15, 25, 27-28, 69-70, 72-76, 78, 80, and 82-84 are not anticipated by Flores because Flores does teach or suggest all of the claim limitations. Flores teaches an assembly including a lower tank (17) and a cold heat exchanger (18/39) that together make up an evaporator for the evaporation of a fluid (50) within the lower tank (17). Both embodiments of the cold heat exchanger (18/39) consist of heat pipes (43) in thermal communication with electronics (37). Both the lower tank (17) and the cold heat exchanger (18/39) are located within a Dewar flask (15). Flores also teaches a compressor (23), outside of the Dewar flask (15), for the removal of the evaporated fluid from the lower tank (17). The compressor (23) removes the evaporated fluid not only from the lower tank (17), but also from the Dewar flask (15), and transfers it to an upper tank/hot heat exchanger (24) that is also outside the Dewar flask (15). By doing so, the compressor (23) maintains the lower tank (17) at a specified atmospheric pressure value for a desired evaporation of the fluid in the lower tank (17). Thus, Flores teaches that the fluid, liquid or gas, in the lower tank (17) is not maintained in either the lower tank (17) or the Dewar flask (15).

By removing fluid from the lower tank (17) and the Dewar flask (15), Flores does not teach or suggest a heat storage unit comprising a jacket that maintains all phases of the phase change material within the jacket as recited by the claims. Instead, Flores teaches the exact opposite by teaching the designed removal of the evaporated fluid from the lower tank (17) and the Dewar flask (15) to the upper tank (24) by operation of the compressor (23). Thus, instead of maintaining all phases of a phase change material within the lower tank (17), Flores purposefully removes the evaporated phase of the fluid (50) from both the lower tank (17) and the Dewar flask (15). Additionally, by removing the evaporated phase of the liquid and thus heat from the lower tank (17), the lower tank (17) can hardly be said to be a heat storage unit as recited by the claims. The applicants therefore respectfully submit that Flores does not anticipate claims 1, 3-8, 11-12, 15, 25, 27-28, 69-70, 72-76, 78, 80, and 82-84 because Flores fails to disclose each and every element of the claims. Accordingly, the applicants respectfully submit that claims 1, 3-8, 11-12, 15, 25, 27-28, 69-70, 72-76, 78, 80, and 82-84 are patentably distinguishable over Flores and request that the examiner withdraw the rejection.

Additionally, the applicants respectfully submit that Flores does not teach or suggest a thermal conduit system thermally coupling a heat exchanger with a heat storage unit. The examiner asserts that Flores teaches a thermal conduit system in the form of heat pipes (43) thermally coupling a heat exchanger (39) with a heat storage unit in the form of the lower tank (17). However, Flores actually teaches that the heat exchanger (39) and the heat pipes (43) are one and the same and that the heat exchanger (39), through the use of its heat pipes (43), is what transfers the heat from the electronics (37) to the lower tank (17):

> This apparatus has a tank containing a cooling agent, *a heat exchanger to transfer heat from the instrumentation to the cooling agent*, a compressor and a tank to hold cooling agent removed from the first tank. In this operation, the cooling agent tank is located in close proximity to the instrumentation. As the instruments generate heat, *the heat is transferred through the heat exchanger to the cooling agent*.[1]

> The tool electronics and a lower tank of water are in thermal communication with one another *via a cold heat exchanger*.[2]

[1] Flores, Abstract. (emphasis added)

[2] Flores, column 5, lines 13-15. (emphasis added)

Thus, Flores does not teach a thermal conduit system at all, but instead teaches the heat exchanger (39) itself transferring heat to the lower tank (17). Flores's use of the heat exchanger (39) to directly transfer heat to the lower tank (17) clearly does not teach a fluid conduit system that thermally couples a heat exchanger with a heat storage unit as recited by the claims. The applicants therefore respectfully submit that Flores does not anticipate claims 1, 3-8, 11-12, 15, 25, 27-28, 69-70, 72-76, 78, 80, and 82-84 because Flores fails to disclose each and every element of the claims. Accordingly, the applicants respectfully submit that claims 1, 3-8, 11-12, 15, 25, 27-28, 69-70, 72-76, 78, 80, and 82-84 are patentably distinguishable over Flores and request that the examiner withdraw the rejection.

II. CLAIMS REJECTIONS – 35 U.S.C. § 103

A. Claims 13-14

The examiner rejected claims 13-14 under 35 U.S.C. §103(a) as being unpatentable over Flores in view of Boesen (U.S. Patent No. 4,375,157) [hereinafter Boesen].

The applicants respectfully submit that claims 13-14 of the present application are not unpatentable over Flores in view of Boesen because neither Flores nor Boesen teach or suggest all of the claim limitations. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious.[3] Claims 13-14 depend from independent claim 1. The applicants repeat the remarks made above regarding the allowable independent claim 1. For at least these reasons, the applicants respectfully submit that claims 13-14 are also allowable and request that the examiner withdraw the rejection with respect to claims 13-14 as well.

B. Claims 17-18

The examiner rejected claims 17-18 under 35 U.S.C. § 103(a) as being unpatentable over Flores.

The applicants respectfully submit that claims 17-18 of the present application are not unpatentable over Flores because Flores does not teach or suggest all of the claim limitations. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious.[4] Claims 17-18 depend from independent claim 1. The applicants repeat the remarks made above regarding the allowable independent claim 1. For at least these reasons, the applicants

[3] *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

[4] *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

respectfully submit that claims 17-18 are also allowable and request that the examiner withdraw the rejection with respect to claims 17-18 as well.

C. Claims 17-24

The examiner rejected claims 17-24 under 35 U.S.C. § 103(a) as being unpatentable over Flores in view of Drube et al. (U.S. Patent No. 6,799,429) [hereinafter Drube].

The applicants respectfully submit that claims 17-24 of the present application are not unpatentable over Flores in view of Drube et al. because neither Flores nor Drube et al teach or suggest all of the claim limitations. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious.[5] Claims 17-24 depend from independent claim 1. The applicants repeat the remarks made above regarding the allowable independent claim 1. For at least these reasons, the applicants respectfully submit that claims 17-24 are also allowable and request that the examiner withdraw the rejection with respect to claims 17-24 as well.

III. ALLOWABLE SUBJECT MATTER

The examiner allowed claims 45-48, 50-55, 57-65, 67, and 68. The examiner stated that claims 2, 73, and 81 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The applicants respectfully submit that the independent base claims for 2, 73, and 81, claims 1, 69, and 78 are in condition for allowance as discussed above. As such, the applicants respectfully submit that claims 2, 73, and 81 are also in condition for allowance. Therefore, the applicants respectfully request that the examiner remove the objection with respect to claims 2, 73, and 81.

The applicants note that the examiner again rejected claim 73 in the 35 USC § 102 rejection above but also listed claim 73 as an objected-to claim. The applicants again respectfully request clarification of the examiner's position of the allowability of claim 73.

IV. STATEMENT REGARDING CLAIMS

The applicants have argued the allowability of the claims by addressing the comments by the examiner in this paper as well as previously during the prosecution of this application. By

[5] *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

doing so, the applicants are in no way limiting their ability to argue additional points of novelty regarding the independent claims or dependent claims at a later date.

CONCLUSION

The applicants respectfully request reconsideration the non-allowed and withdrawn claims and that a timely Notice of Allowance be issued in this case. If the examiner feels that a telephone conference would expedite the resolution of this case, the examiner is invited to contact the undersigned.

In the course of the foregoing discussions, the applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. There may also be other distinctions between the claims and the prior art that have yet to be raised, but that may be raised in the future.

If any fees are inadvertently omitted or if any additional fees are required or have been overpaid, please appropriately charge or credit those fees to Conley Rose, P.C. Deposit Account Number 03-2769 (ref. 1391-34500) of Conley Rose, P.C., Houston, Texas.

Respectfully submitted,
CONLEY ROSE, P.C.

/Collin A. Rose/

Collin A. Rose
Reg. No. 47,036
P.O. Box 3267
Houston, TX 77253-3267
(713) 238-8000 (Phone)
(713) 238-8008 (Fax)